STATE MACHINE REPRESENTATION FOR ENCRYPTING AND DECRYPTING A SET OF DATA VALUES AND METHOD FOR PROTECTING THE SAME

ABSTRACT OF THE INVENTION

A state machine representation is provided that includes a plurality of nodes that are assigned a unique node identifier and an output value, and that are grouped into color segments. The nodes are interconnected by transitional vectors, with each transitional vector being assigned a unique value. Further, at least one of the nodes has a termination vector that leads to a termination point. To encrypt the set of data values, a start node is identified and any path of transitional vectors is be traversed from node to node. As each transitional vector is traversed, its corresponding unique value will be recorded in sequence. When a node is reached that has an output value that matches one of the set of data values, an invalid unique value is designated and recorded in sequence with the unique values.